

## CONTRIBUTORS TO THIS ISSUE

**Bernard C. De Loach, Jr.**, B.S. (Physics) 1951, M.S. (Physics), 1952, Auburn University; Ph.D. (Physics), 1956, Ohio State University; Bell Laboratories, 1956—. After joining Bell Laboratories, Mr. De Loach was a member of the Radio Research Department. Presently, he is engaged in the development of semiconductor lightwave devices and superconducting Josephson Junctions. He has been granted eleven patents. From 1955 to 1956, he was an Ohio State University Fellow. In 1972, he received the IEEE Fellow Award and in 1975, the IEEE David Sarnoff Award and the Stuart Ballentine Medal. Member, IEEE, Pi Mu Epsilon, Sigma Xi, Sigma Pi Sigma.

**Christopher Flores**, B.Tech. (Electrical Engineering), 1978, Indian Institute of Technology, Kanpur; M.S. (Operations Research), 1981, University of California, Berkeley; Ph.D. candidate (Electrical Engineering), 1978—, University of California, Berkeley. Mr. Flores' dissertation topic involves encoding of bursty services under a delay criterion. His other research interests include stochastic networks, multiple-access channels, and spread spectrum systems.

**Bryon L. Kasper**, B.Sc. (E.E.), University of Alberta, 1973; Alberta Government Telephones, 1973-1975; Ph.D. (E.E.), University of Alberta, 1981; Bell Laboratories, 1981—. Mr. Kasper worked for Alberta Government Telephones on acceptance testing of light-route microwave, mobile radio, and customer services equipment. At the University of Alberta, he conducted research on real-time digital signal processing for use in removing terrestrial radio interference from decametric radio astronomy observations. Since joining the Guided Wave Research Laboratory of Bell Laboratories, he has been involved in the equalization of optical transmission systems and in various aspects of high-speed, single-mode optical systems. Member, IEEE.

**Richard B. Lawry**, Associate in Electronics Technology, 1968, Penn Technical Institute; Bell Laboratories, 1968—. Mr. Lawry has worked in acousto-optic modulator fabrication and design, in automated charge-coupled device testing, and in dc sputtering of thin metal films for laser machining. His current work concerns p-type contact studies on InP.

**George S. Lee**, B.A. (Mathematics and Philosophy), 1975, Yale University; M.S. (Statistics), Ph.D. (Mathematics), 1980, University of

Wisconsin at Madison; Bell Laboratories, 1980—1982; American Bell, 1982—. Mr. Lee is a member of the Performance Analysis Group in the Advanced Information Systems/Net 1 project. His primary field of interest is in computer performance modeling. Member, American Mathematical Society, American Statistical Association.

**John O. Limb**, B.E.E., 1963, Ph.D. (Electrical Engineering), 1967, University of Western Australia, Nedlands; Research Laboratory, Australian Post Office, 1966 to 1967; Bell Laboratories, 1967—. At Bell Laboratories, Mr. Limb worked for a number of years on the coding of color and monochrome picture signals to reduce channel capacity requirements and has published widely in this area. He currently heads the Distributed Computer Systems Research Department, and has been studying the application of new telecommunications services in the office environment. His current research interest is wideband, local-area networks. Fellow, Institute of Electrical Engineers. Member, IEEE (Editor of IEEE Transactions on Communications), Association for Computing Machinery, Association for Research in Vision and Ophthalmology, Optical Society of America.

**Nicolas F. Maxemchuk**, B.S.E.E., 1968, City College of New York; M.S.E.E., 1970, Ph.D., 1975, University of Pennsylvania. RCA David Sarnoff Research Center 1968–1976; Bell Laboratories 1976—; Adjunct Faculty of Computer and Information Sciences Department and Systems Engineering Department at the University of Pennsylvania. Mr. Maxemchuk is a member of the technical staff of the Distributed Computer Systems Research Department. Since joining Bell Labs he has done research on computer-communication networks, virtual and speech editing, and picture processing. He teaches courses on computer-communication networks, and he is Associate Editor for Data Communication for the IEEE Transactions on Communications. Member, Eta Kappa Nu, Tau Beta Pi.

**Robert C. Miller**, B.A. (Mathematics), 1949, University of Chicago; Ph.D. (Physics), 1957, University of Illinois; Bell Laboratories, 1957—. At Bell Laboratories, Mr. Miller has worked on electron device designs, diagnostic studies of gaseous laser systems, laser microrecording systems, and photovoltaic device applications. He is currently studying chemical diffusion in III-V semiconductors.

**John A. Morrison**, B.Sc., 1952, King's College, University of London; Sc.M., 1954 and Ph.D., 1956, Brown University; Bell Laboratories,

1956—. Mr. Morrison has done research in a number of different areas of applied mathematics and mathematical physics. He has recently been interested in probability theory, and various queueing problems in particular. He was a Visiting Professor of Mechanics at Lehigh University during the Fall semester 1968. He is currently the Managing Editor of SIAM Review. Member, American Mathematical Society, SIAM, IEEE, Sigma Xi.

**Vasant K. Prabhu**, B.E. (Dist.), 1962, Indian Institute of Science, Bangalore, India; S.M., 1963, Sc.D., 1966, Massachusetts Institute of Technology; Bell Laboratories, 1966—. Mr. Prabhu has been concerned with various theoretical problems in solid-state microwave devices and digital and optical communication systems. Member, IEEE, Eta Kappa Nu, Sigma Xi, Tau Beta Pi, Commission 6 of URSI.

**Harrison E. Rowe**, B.S., 1948, M.S., 1950, Sc.D., 1952 (Electrical Engineering), Massachusetts Institute of Technology; U. S. Navy, 1945–1946; Bell Laboratories, 1952—. Early in his career at Bell Laboratories, Mr. Rowe worked in the Radio Research Laboratory. Presently, he is a member of the technical staff of the Radio Physics Research Department. His publications include numerous papers and one textbook, spanning a variety of fields including parametric amplifiers, noise and communication theory, propagation in random media, and related problems in waveguide, radio, and optical communication systems. He is the joint author of five patents. Mr. Rowe is a Fellow of the IEEE, and a co-recipient of the 1977 David Sarnoff Award and the 1972 Microwave Prize. Member, Commission C of URSI, Sigma Xi, Tau Beta Pi, Eta Kappa Nu.

**Stuart C. Schwartz**, B.S., M.S. (Aeronautical Engineering), 1961, Massachusetts Institute of Technology; Ph.D. (Information and Control Engineering), 1966, The University of Michigan; Jet Propulsion Laboratory, Pasadena, California, 1961–1962; The Technion, Haifa, Israel, 1972–1973; Bell Laboratories, 1980–1981; Princeton University 1966—. At Bell Laboratories, Mr. Schwartz was a member of the Radio Research Laboratory's technical staff. At Technion, he was a John S. Guggenheim Fellow and a Visiting Professor, Department of Electrical Engineering. His principal research interests are in the application of probability and stochastic processes to problems in statistical communication and system theory. He has served as an editor of the SIAM Journal of Applied Mathematics. Member, Sigma Gamma Tau, Eta Kappa Nu, Sigma Xi, Institute of Mathematical Statistics.

**Thomas S. Stakelon**, B.S. (Physics), 1967, Manhattan College; M.S., 1969, Ph.D., 1974 (Physics), University of Illinois, Urbana; Post-doctoral Assistant, 1974-1976, The Ohio State University; Bell Laboratories, 1976—. At Bell Laboratories, Mr. Stakelon is Technical Supervisor of the Wavelength Division Multiplexing Group. He has been engaged in the exploratory and specific development of devices and components for wavelength multiplexing in fiber optic systems since 1979. Prior to that he worked on ferrite materials development and testing.

**Raymond Steele**, B.S., 1959, Ph.D. (Electrical Engineering), 1975, Durham University, Durham, England; E. K. Cole, Ltd., 1959-1961; Cossor Radar, Electronics, Ltd., 1961-1962; The Marconi Company, 1962-1965; Royal Naval College, 1965-1968; Loughborough University of Technology, 1968-1979; Bell Laboratories, 1979—. At E. K. Cole, Ltd., Cossor Radar, Electronics, Ltd., and The Marconi Company, all located in Essex, England, Mr. Steele was engaged in research and development. As a member of the Lecturing Staff at the Royal Naval College in London, he lectured on telecommunications for the NATO and external London University degree courses. At the Loughborough University of Technology in Loughborough, England, he directed a research group in digital encoding of speech and television signals, in addition to serving as Senior Lecturer. Before joining Bell Laboratories on a full-time basis, Mr. Steele served as part-time consultant to the Laboratories' Acoustics Research Department. Presently, he is a member of the Communications Methods Research Department. He is the author of *Delta Modulation Systems*, published in 1975.

**Paul E. Wright**, A.B. (Mathematics/Physics), 1982, Cornell University. Mr. Wright was a Summer Research Associate at Bell Laboratories, 1981-1982. He is currently in a Ph.D. program at Cornell and is interested in Mathematical Physics. Member, Phi Beta Kappa, Alpha Lambda Delta, Alpha Chi Sigma.

**Yu S. Yeh**, B.S.E.E., 1961, National Taiwan University; M.S. (Electrical Engineering), 1964, Ph.D. (Electrical Engineering), 1966, University of California at Berkeley; Chinese Navy 1961-1962; Harvard University, 1966-1967; Bell Laboratories, 1967—. Mr. Yeh was engaged in mobile radio research from 1967 to 1972. Since that time he has worked on communication satellite systems and digital radio systems.